

# Interactive Resource Center: Support and resources for international scientists

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January, 2003 Alexandria

Challenge Program Unlocking Genetic Diversity  
Working Group on Capacity Building

Recommendations include: creation of a “Helpdesk” to  
support CP scientists

# Interactive Resource Center: Support and resources for international scientists

The Helpdesk concept as a centralized resource for scientists

*Why?*

- Volume and diversity of questions and requests we receive
- Lack of centralized support for scientists in developing countries
- Lack of follow up support for scientists returning home after training
- Lack of knowledge of how to use available resources (databases, etc.)

## *Institute for Genomic Diversity*

- At Cornell University
- Member and advisor of CP
- Many resources nearby
- Longstanding CGIAR ties
- Strong training programs

Short or longer term

Ranging from CGIAR scientists via Frosty Hill to external training workshops



# Needs as assessed by August, 2004, workshop, Costa Rica

## *Protocols*

### *List of suppliers*

- Chemicals
- Primer synthesis
- Equipment

### *Virtual library*

### *List of all known genes per crop*

### *Educational/Training Online Resources*

- How to write a scientific paper
- How to write a proposal
- How to make a budget
- Basics of IPR
- How to manage a lab (supervising, lab notebooks, etc.)
- How to use the Internet efficiently
- How to give a presentation
- Entrepreneurship
- Bioethics
- Biosafety
- How to set up a lab (for specific purposes, mol bio, etc.)
- Basics of genetic engineering
- Bioinformatics (blasting, comparative genomics, etc.)



## Interactive Resource Center:

An online helpdesk *plus* personal interactive support *plus* resources  
for scientists worldwide

### Resources already available:

- Real, warm-body place to answer questions
- Links to plant databases
- Protocols
- Links to freely available literature
- Funding and training opportunities

<http://irc.igd.cornell.edu>




## *Additional resources to be developed...*

- ❖ Lists of suppliers of reagents, primers, lab supplies
- ❖ Assistance in proposal development and fostering research ideas
- ❖ Databases made for specific needs
- ❖ Workshops, real and virtual
- ❖ Online Tutorials


Interactive Resource Center

Address: http://irc.igd.cornell.edu/


A CGIAR Generation Challenge Programme... Cultivating Genetic Diversity for the Resource Poor



# Interactive Resource Center & Helpdesk



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[home](#) [dictionaries, glossaries](#) [about IRC](#) [protocols](#) [databases](#) [CGIAR](#) [GCP](#) [contact us](#)

*The IRC was created as a centralized place for resources for international plant scientists, especially but not limited to those in the CGIAR and Generation Challenge Program user communities.*

**More about the IRC**

[Generation Challenge Program](#)

[US-AID](#)

[Molecular Marker Learning Modules](#)  
*Available via CD or downloadable*

**Resources for scientists:** "How to..." (write a proposal, write a scientific paper, etc.)

[Protocols](#)

Hot topics: Biosafety, bioethics, genetic engineering

Funding sources: For [training experiences](#) or [research](#)

**Databases:** Links to freely available plant genetic and genomic data, including sequence, map and other.

[Analysis & Bioinformatics.](#) Includes free software, etc.

[Resources for teachers, students, and others](#)

**Literature:** Publicly available plant genomics literature and news sources

**Have a Question or a Problem?**  
*Email the helpdesk*

We will try to answer it or find someone who can!

- \*Looking for a protocol?
- \*Troubleshooting a technical problem?
- \*Looking for a collaborator?

[More](#) about the helpdesk, including phone, fax, and snailmail info...

You can use [Google](#) to search the www or our local web site.

Google

Search WWW  Search Local

*Last updated September 12, 2005*

*For Questions about the site or suggestions of information to add, contact:*  
**Dr. Theresa M. Fulton, Director**  
[IGDResourceCenter@cornell.edu](mailto:IGDResourceCenter@cornell.edu)

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Molecular Marker Modules Vol 1

Using Molecular Marker Technology in Studies on Plant Genetic Diversity:  
Learning Module  
Volume 1

*(caution: some files are large, and may not be as interactive as the CD)*

[Title page \[PDF, 115 kb\]](#)  
[Preface \[PDF, 9 kb\]](#)  
[Foreword \[PDF, 11 kb\]](#)  
[About this module \[PDF, 13 kb\]](#)  
[Objectives \[PDF, 7 kb\]](#)

**I. Introduction [PDF, 486 kb]**

**II. Protein-based technologies**


- \* [Protein basics \[PDF, 137 kb\]](#)
- \* [Isozymes \[PDF, 295 kb\]](#)

**III. DNA-based technologies**

- \* [DNA basics \[PDF, 394 kb\]](#)
- \* [Restriction fragment length polymorphisms \(RFLPs\) \[PDF, 503 kb\]](#)
- \* [PCR basics \[PDF, 326 kb\]](#)
- \* [PCR with arbitrary primers \[PDF, 206 kb\]](#)
- \* [Amplified fragment length polymorphisms \(AFLPs\) \[PDF, 279 kb\]](#)
- \* [Sequence-tagged sites \(Microsatellites etc\) \[PDF, 308 kb\]](#)
- \* [Latest strategies \[PDF, 324 kb\]](#)

**IV. Complementary technologies [PDF, 136 kb]**

- \* Denaturing gradient gel electrophoresis (DGGE)
- \* Thermal gradient gel electrophoresis (TGGE)
- \* Single-stranded conformational polymorphism (SSCP)
- \* Heteroduplex analysis
- \* Denaturing high-performance liquid chromatography (DHPLC)




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Interactive Resource Center


Back Forward Stop Refresh Home AutoFill Print Mail

Address: <http://irc.igd.cornell.edu/Training/links.html>




## Interactive Resource Center

& Helpdesk



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**Disclaimer:**  
Obtaining funding is generally a long and competitive process, and success cannot be guaranteed. This list is simply given as possible opportunities. No funding is given by the IRC; you must contact the original source.

- Generation Challenge Programme** - Has a number of fellowships available: <http://www.generationcp.org>
- Kirkhouse Trust** - funds travel grants to conferences, and postdoc research in US and UK that are part of collaborative projects. <http://www.Kirkhousetrust.org/>.
- National Science Foundation** - "Developing country collaborations" supports scientists to work in a US laboratory on a current Plant Genome Research Project, <http://www.nsf.gov/pubs/2004/nsf04563/nsf04563.htm>. Note that these must be submitted as a supplement to a current NSF PGRP project.
- Vavilov-Frankel Fellowship Fund** (established by IPGRI):  
<http://www.ipgri.cgiar.org/training/vavilov.htm>
- Cornell University Frosty Hill Fellowships (for members of CGIAR centers):**  
<http://ip.cals.cornell.edu/programs/researchexchanges/frostyhills.cfm>
- TWOWS Postgraduate Training Fellowships** for Women Scientists in Sub-Saharan Africa and Least Developed Countries (LDC) at Centres of Excellence in the South  
<http://www.twows.org>
- Fulbright Scholar Program (Council for International Exchange of Scholars):**  
<http://www.cies.org/cies.htm>
- International Centre for Genetic Engineering and Biotechnology (ICGEB)** - Postdocs, graduate work, and other. <http://www.icgeb.trieste.it/>
- USDA Foreign Agricultural Service** <http://www.fas.usda.gov/techasst.htm/>
- Borlaug International Agricultural Science & Technology Fellows Program:** funds training visits. <http://www.fas.usda.gov/ical/borlaug/program.htm>
- Cornell-Einaudi Center Institute for African Development** <http://www.einaudi.cornell.edu/africa/default>

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# Resource Center Usage:

(as of 15/09/05)

- Average hits per day: 88
- Total hits to date: > 16, 000
- Most requested pages:
  - Protocols
  - Molecular marker module chapters
  - Funding
- Materials most requested to be added to the site:
  - Lists of suppliers of reagents, primers etc.

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